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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,179	09/26/2001	Ken Ioka	OOCL-71 (US-P1506)	9597

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EXAMINER

CRUZ, MAGDA

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/964,179

Applicant(s)

IOKA, KEN

Examiner

Magda Cruz

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10 and 14 is/are rejected.
- 7) ☒ Claim(s) 7-9 and 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1) ☒ Certified copies of the priority documents have been received.
2) ☐ Certified copies of the priority documents have been received in Application No. _____.
3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. In view of the applicant's arguments in their Request for Reconsideration, the finality of the Office Action mailed on 08/08/2003 is withdrawn and prosecution is reopened.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higurashi, et al. in view of Inova et al.

Higurashi, et al. (US Patent Number 6,222,593 B1) discloses an image projection and display device (column 2, lines 225-26) comprising a plurality of projectors (7a-7d), a projection screen (8) forming a focusing plane for projected images from the plurality of projectors (7a-7d), mutually overlapping regions existing between said images (Figure 1); a test image storing section (71) for storing prescribed test images (column 12, lines 18-22); an image capturing section (77a, 77b...) for acquiring projected test images (78) in which a prescribed test image (76) is projected onto said projection screen respectively by each of said projectors (79a, 79b...); a correction data storing section (92) for storing the correction data thus calculated (column 12, lines 42-46); an

image correcting section for correcting the images input to the respective projectors, by using said correcting data (column 17, lines 31-35), wherein the uniform brightness is achieved across the whole projection area including the overlapping regions (column 18, lines 60-63). The correction data storing section stores initial correction data as first correction data (column 18, lines 8-10), said correction data calculating section calculates second correction data (column 18, lines 10-12), from the image of the prescribed test image projected after correction (column 18, lines 45-47) using the first correction data (column 18, lines 48-50); judges whether or not it is necessary to update the first correction data, according to the second correction data, and judges of an updating is necessary (column 9, line 66 through column 10, line 3). The correction data calculating section repeats the task of updating the first correction data (column 5, lines 47-50), until it is judged from the second correction data that it is not necessary to create new first correction data (column 7, lines 10-22).

Higurashi, et al. (US Patent Number 6,222,593 B1) teaches the salient features of the present invention, except a correction data calculating section for calculating correction data for correcting the input images for the respective projectors, on the basis of the acquired test images, in such a manner that a target brightness is achieved across the whole projection area including the overlapping regions. However, Higurashi et al. discloses an image capturing section (77a, 77b...) for acquiring projected test images (78) in which a prescribed test image (76) is projected onto said projection screen respectively by each of said projectors (79a, 79b...).

Inova et al. (US Patent Number 5,136,390) discloses a correction data calculating section for calculating correction data for correcting the input images for the respective projectors (column 1, lines 61-65), on the basis of the acquired test images, in such a manner that a target brightness is achieved across the whole projection area including the overlapping regions (column 1, line 65 through column 2, line 10).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the correction data calculating section and light shielding sections disclosed by Inova et al. in combination with the image capturing section means from Higurashi, et al.'s invention, for the purpose of precisely adjusting from detail element to detail element across an entire video image (column 1, lines 55-56).

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higurashi, et al. in view of Inova et al. as applied to claims 1-5, 10 and 14 above, and further in view of Creek et al.

Higurashi, et al. (US Patent Number 6,222,593 B1) in combination with Inova et al. (US Patent Number 5,136,390) teaches the salient features of the present invention, except light shielding sections disposed in the light paths of the plurality of projectors, so as to reduce the quantity of light in the overlapping regions on the projection screen. However, Higurashi et al. discloses optical sensors that detect the state of the projection image (column 10, lines 57-58).

Creek et al. (US Patent Number 6,590,621 B1) discloses light shielding sections (10, 11) disposed in the light paths of the plurality of projectors (1, 2), so as to reduce

the quantity of light in the overlapping regions on the projection screen (column 2, lines 57-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the light shielding sections disclosed by Creek et al. in substitution of the optical sensors from Higurashi, et al.'s invention, for the purpose of achieving a high quality optical blend (column 2, lines 51-52).

Allowable Subject Matter

5. Claims 7-9 and 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach an image projection and display device, comprising in combination with the additionally recited elements, wherein at least one of the prescribed test images stored in the test image storing section is a white, or gray, or one of red, green and blue color test screen.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (703)308-

6367. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703)308-2847. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



RUSSELL ADAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2000

Magda Cruz
Patent Examiner
January 12, 2004